

RECORD OF DECISION

Final Supplemental Environmental Impact Statement (FSEIS) for the Evolved Expendable launch Vehicle (EELV)

May 2000

I. INTRODUCTION

In 1998, the Air Force analyzed the environmental impacts of launch vehicles proposed for use by the Evolved Expendable Launch (EELV) Program to meet the projected launch requirements, as defined in 1998. That analysis was documented in the *Final Environmental Impact, Evolved Expendable Launch Vehicle Program*, dated March 1998 (1998 FEIS). On 8 Jun 1998, the Acting Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering signed a Record of decision (ROD) approving the proposed action, which included Small-Lift Vehicle (SLV), Medium-Lift Vehicle (MLV), and Heavy-Lift Vehicle (HLV) configurations of the Atlas V and Delta IV launch vehicles. Since then, changes in the projected launch requirements have occurred that caused the Air Force to consider launch vehicle configurations different from those analyzed in the 1998 FEIS.

This ROD documents my decision to approve the Proposed Action analyzed in the *Final Supplemental Environmental Impact Statement, Evolved Expendable Launch Vehicle Program* (FSEIS). The FSEIS analyzes the addition of up to five strap-on Solid Rocket Motors (SRMs) to the Atlas V MLV and the use of two or four larger SRMs on Delta IV-M+ MLV. These changes will create an Intermediate-Lift Vehicle (ILV) capability that will enable the EELV family of vehicles to cost effectively increase the market capture of the changing commercial and government launch requirements. The Air Force performed the analysis of this Proposed Action and prepared this ROD in accordance with the National Environmental Policy Act (NEPA). The President's Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] 1500-1508) that implement NEPA require the preparation of a supplement to a FEIS when substantial changes to the FEIS' Proposed Action are being considered or when there are new circumstances or information relevant to the environmental concerns addressed in the FEIS. The Air Force also followed the NEPA implementing guidance in the Department of Defense Regulation 5000.2-R and AFI 32-7061, *The Environmental Impact Analysis Process*, as promulgated in 32 CFR Part 989. The decision documented in this ROD takes into consideration the information contained in the FSEIS for the EELV program and incorporates by reference the 1998 FEIS and the 1998 ROD for the EELV program.

Background

The 1998 FEIS analyzed the environmental impacts associated with the Proposed Action to develop and operate SLV, MLV, and HLV variants of the EELV family of launch vehicles designed to deliver payloads of varying sizes and masses to Earth orbit. The primary requirements for the EELV program are to provide the MLV and HLV capability to place payloads weighing from 2,500 pounds to 41,000 pounds into a variety of orbits.

The Proposed Action in the 1998 FEIS considered three different approaches for implementing EELV: Concept A, Concept B, and Concept A/B. In Concept A, now called the Atlas V system, Lockheed Martin Corporation (LMC) proposed vehicles that have a liquid-oxygen/kerosene core booster. In Concept B, now referred to as the Delta IV system, McDonnell-Douglas Corporation, a wholly owned subsidiary of The Boeing Company (Boeing), proposed vehicles that have a liquid-oxygen/liquid-hydrogen booster core. Concept B also included the use of small, strap-on SRMs for some commercial launches of the Delta IV MLV. In Concept A/B, the Air Force's Proposed Action, the EELV family of vehicles would consist of a combination of both the Atlas V and Delta IV launch vehicles. After signing the 1998 FEIS ROD in June 1998 approving Concept A/B, the Air Force awarded development agreements and initial launch services contracts to both LMC and Boeing.

Following the approval of the June 1998 ROD, LMC and Boeing proposed adding new variants of the launch vehicles originally considered in the 1998 FEIS. Both Boeing and LMC proposed using MLVs augmented with SRMs to help them meet the changing launch service requirements. LMC has proposed an Atlas V vehicle that uses up to five SRMs containing aluminum, ammonium perchlorate, and organic binder to augment the liquid-oxygen/kerosene core booster on its MLV. Boeing has proposed the use of either two or four SRMs with an aluminum/ammonium perchlorate/binder propellant similar to, but larger than, the Delta IV SRMs analyzed in the 1998 FEIS. The use of additional and larger SRMs and continued use previously obtained leased/licensed property for the EELV program is the Proposed Action for this FSEIS.

Purpose and Need

LMC's and Boeing's need to respond to the changing commercial and military launch requirements with more cost-effective launch vehicles is the basis for the Proposed Action to add SRMs to the Atlas V and Delta IV MLVs analyzed in the 1998 FEIS. Commercial payloads are growing in size beyond the capabilities of the EELV MLVs.. The Commercial Space Transportation Advisory Committee (COMSTAC) attributes this trend to an increased demand for commercial communications capability in orbit. This demand is being satisfied with larger, more powerful communication satellites and with the deployment of multiple, smaller satellites from the same launch vehicle. LMC and Boeing have proposed using SRMs to allow them to launch larger payloads with SRM-augmented MLVs, rather than the more costly HLVs. At the same time, the government, through miniaturization advances and simpler spacecraft design, is requiring fewer HLV launches and more MLV launches.

Incorporating SRMs will allow both EELV contractors to offer ILVs with the performance needed to economically bridge the lift-capability gap between existing MLV and HLV variants of launch vehicles. Air Force support of the proposed ILV systems is consistent with the U.S. Government's desire to encourage U.S. commercial space vehicle competitiveness and to minimize the costs of military launches [42 U.S.C. 26 Sec 2465b and P.L. 103 - 272, Sec. 1 (e), Jul 1994, 108 Stat. 1330, the Commercial Space Launch Act as codified in 49 U.S.C. Sec 70101, 26 Jan 1998, and National Space Policy (NSP) Directive No. 1, 2 Nov 1998].

Decision to be Made

The decision to be made is whether the Air Force will allow use of the proposed SRMs at Vandenberg AFB, California and at Cape Canaveral AFS, Florida for EELV program launches of commercial and/or government payloads and whether the Air Force will authorize continued use of U.S. Government property previously leased/licensed under the EELV program to support the proposed launch vehicle configuration.

Public Involvement

The efforts to involve the public during the preparation of the supplement to the FEIS were in accordance with CEQ and Air Force requirements. The Notice of Intent (NOI) to prepare the Draft supplemental EIS (DSEIS) was published in the *Federal Register* on 12 Apr 1999. The public scoping period for the DSEIS began on 13 Apr 1999, and ended 31 May 1999. The Air Force published the notice of the availability of the DSEIS for public review in the *Federal Register* on 12 Nov 1999, initiating a 45-day comment period, which closed on 27 Dec 1999. In addition, the Air Force placed ads in newspapers of the affected communities notifying the public of their opportunities to participate in the comment period. During the comment period, the Air Force held public hearings at Cape Canaveral, Florida, on 7 Dec 1999, and at Lompoc, California, on 9 Dec 1999, at which the Air Force presented the findings in the DSEIS. The Air Force filed the FSEIS with the U.S. Environmental Protection Agency (EPA) on 7 Apr 2000, and published a notice of availability in the *Federal Register* on 14 Apr 2000.

During the public comment period, the Air Force received nine letters containing 70 individual comments from agencies, organizations, and individuals and five persons provided oral testimony at the public hearings. Several persons expressed concern about measures taken to ensure the safety and health of the general public during launch events at Vandenberg AFB, the validity of the analysis of hydrogen chloride (HCl) deposition around Vandenberg AFB, and concern over the effect of noise and sonic booms on sensitive wildlife. Section III of this ROD addresses these concerns. I have considered the public comments in reaching my decision to approve the FSEIS Proposed Action.

II. ALTERNATIVES CONSIDERED

After the signing of the ROD for the 1998 FEIS, LMC and Boeing proposed using SRMs to increase the payload capacity of their respective MLVs for the EELV program. The Proposed Action in the FSEIS is to allow the use of these augmented launch vehicles for the EELV program. The No-Action Alternative presented in this FSEIS is the Proposed Action approved by the 1998 ROD, with minor updates to the information analyzed in the 1998 FEIS.

Proposed Action

The FSEIS' Proposed Action is to allow the use of SRM-augmented EELV launch vehicle configurations. Both EELV program launch vehicle contractors have proposed the use of solid-propellant strap-on rocket motors as economical ways to bridge the gap between their respective MLVs and HLVs. LMC proposes adding up to five strap-on SRMs to the Atlas V MLV, while Boeing proposes adding either two or four larger SRMs to the Delta IV-M+. For LMC, the proposed ILV configurations of launch vehicles using SRMs will replace some of the non-SRM augmented launches previously planned for Atlas V MLVs. Boeing will eliminate the use of the smaller SRMs on the Delta IV-M+, replacing them with the proposed larger SRMs to provide the ILV capability. Thus, the Proposed Action will provide ILV capabilities between the EELV MLV and HLV variants that will increase the EELV's market capture of commercial space launches and could be used to meet the changing government mission requirements. The Proposed Action will affect Cape Canaveral AFS in Brevard County, Florida, and Vandenberg AFB in Santa Barbara County, California, the only two locations in the United States that currently provide space launch capabilities to support the EELV program. The Atlas V and Delta IV systems with SRMs will be designed so that all configurations can be launched from both locations. The Delta IV will launch from Space Launch Complex-37 (SLC-37) at Cape Canaveral AFS and from SLC-6 at Vandenberg AFB. The Atlas V will launch from SLC-41 at Cape Canaveral AFS and from SLC-3W at Vandenberg AFB.

The FSEIS updates the launch rates for the Proposed Action from the No-Action Alternative rates (the 1998 FEIS Proposed Action) using the most current launch rates from the COMSTAC and U.S. Government mission models. In addition, the revised launch rates reflect the projections that the more cost effective ILVs will be able to capture a larger share of the changing commercial launch requirements. The Proposed Action projects 566 launches during the period 2001 to 2020, as compared to 472 launches for the Non-Action Alternative. This is an increase of 94 launches over the 1998 FEIS Proposed Action.

Of the 566 launches for the Proposed Action, 468 will use SRM-augmented ILVs. Of the 472 launches proposed for the No-Action Alternative, 153 launches would have used the SRM-augmented Delta IV MLV vehicles. The difference in the number of launches using SRM-assisted vehicles between the Proposed Action and the No-Action Alternative is 315. Section III of this ROD discusses the analysis of the potential environmental impact from this increased launch rate.

Atlas V

Originally identified in the 1998 FEIS as Concept A, the LMC family of vehicles is now referred to as the Atlas V system. The Atlas V program described in the FEIS did not use SRMs.

Under the Proposed Action, LMC will add an additional group of vehicles to the EELV program, the Atlas V-500 or ILV series. The Atlas V-500 ILV series will use the same core boosters as the Atlas V series described in the 1998 FEIS, but will add up to five strap-on SRMs to improve mass-to-orbit capabilities. The total propellant weight for each Atlas V SRM is approximately 94,300 pounds of aluminum/ammonium perchlorate/binder propellant. The total number of Atlas V-500 ILV launches under the Proposed Action is 232. No SRM-augmented launches would occur under the No-Action Alternative for the Atlas program. LMC will use the same launch facilities at Cape Canaveral AFS and Vandenberg AFB for all Atlas V vehicles. The Atlas V Proposed Action and No-Action Alternative require the same facility modifications.

Delta IV

Originally identified in 1998 FEIS as Concept B, the Boeing family of vehicles is now referred to as the Delta IV system. The Delta IV-M+ vehicle was proposed in the 1998 FEIS as an SRM-assisted MLV in the Delta System.

In the Proposed Action addressed in the FSEIS, Boeing will use larger SRMs than the No-Action Alternative Delta IV-M+ MLV would have. Boeing will add two or four of the larger SRMs to the Delta IV-M+ vehicle to create an ILV capability. The proposed SRMs are approximately 67 percent larger by propellant weight than those addressed in the 1998 FEIS. The total propellant weight for each of the larger Delta IV SRMs is approximately 61,800 pounds compared to 37,000 pounds for each SRM proposed for the No-Action Alternative. The larger SRMs consist of aluminum/ammonium perchlorate/binder propellant. The total number of Delta IV ILV launches under the Proposed Action is 236. Under the No-Action Alternative, 153 Delta IV-M + launches would occur. Boeing will use launch facilities at Cape Canaveral AFS and Vandenberg AFB for all Delta IV vehicles. Minor facility modifications consisting of interior building modifications and paving at Cape Canaveral AFS will occur under the Proposed Action.

No Action Alternative

The No-Action Alternative described in the FSEIS is the Proposed Action approved for implementation in the 1998 FEIS, with updates to reflect current program status. The updates include deletion of certain launch vehicle configurations (including the SLV), changes in the number of launches, increased water usage for the Atlas V vehicles, minor modifications to existing facilities and increased paved areas for operations and storage at Cape Canaveral AFS. Selection of the No-Action Alternative would result in the EELV program continuing as approved by the June 1998 ROD signed following the 1998 FEIS, with the minor updates.

III. ENVIRONMENTAL EFFECTS AND MITIGATION

The FSEIS evaluates the potential impacts of implementing the Proposed Action. The analyses conclude that there will be no significant environmental impacts from implementation of either the Proposed Action or the No-Action Alternative. The analyses also conclude that there will be no significant cumulative impacts.

Even so, the Air Force will take all practicable efforts to avoid or minimize environmental harm from the proposed action. These efforts will be part of the compliance and permitting processes. The Air Force will also comply with those environmental protection statutes and regulations (e.g. Endangered Species Act and Coastal Zone Management Act) that necessitate additional or continuing consultations or other actions following signing of this ROD.

The FSEIS includes the findings of the analysis of the potential impacts to 15 separate environmental resource areas that will result from the implementation of the Proposed Action. These resource areas included community setting, land use and aesthetics (including coastal zone management), transportation, utilities, hazardous materials and hazardous waste management, health and safety, geology and soils, water resources, air quality (lower atmosphere), air quality (upper atmosphere), noise, orbital debris, biological resources, cultural resources, and environmental justice.

The following paragraphs briefly summarize the environmental impacts in each of the 15 areas analyzed for the Proposed Action and the No-Action Alternative. The FSEIS contains the detailed discussions and data describing the potential impacts in each of the following 15 areas.

a. Community Setting

The Proposed Action will neither impact the local or regional economies nor will it result in substantial growth-inducing impacts. The Proposed Action is substantially similar to the No-Action Alternative with respect to the effects on the community setting. Analysis of The No-Action Alternative for this FSEIS was documented in the 1998 FEIS, and included analysis of impacts to the community setting due to construction of the EELV facilities. For the No-Action Alternative, there will be an overall net decline in direct and indirect launch-related employment as the Air Force phases out the existing government non-EELV launch vehicle programs. The analysis concludes that this decrease will be small when compared to the other increases in jobs forecast in both locations.

b. Land Use and Aesthetics

The Proposed Action will not impact the regional or local land uses, the coastal zone, recreation, or aesthetics, either separately or in combination. The Proposed Action will be compatible with current land use at both Vandenberg AFB and Cape Canaveral AFS. The effects of the Proposed Action are substantially similar to the No-Action Alternative, as analyzed in the 1998 FEIS. The EELV program construction and facility modifications were assessed in the 1998 FEIS, and a Coastal Zone Consistency Determination was prepared for the existing EELV program activities at both installations.

c. Transportation

Neither the No-Action Alternative nor the Proposed Action will result in significant impacts to traffic patterns and circulation. This FSEIS revises the FEIS number of offsite trips by trucks to reflect corrections and updates to the quantities of wastewater to be removed from SLC-3W at Vandenberg AFB for both the No-Action Alternative and Proposed Action Alternative.

However, the additional truck trips necessary to transport and process SRMs at either installation will not affect regional traffic.

d. Utilities

The Proposed Action will not have a significant impact on water use, wastewater treatment, solid waste generation, and electrical distribution systems required at either installation. The impacts will be substantially similar to those for the No-Action Alternative, which include revisions to water usage computations used in the FEIS. All utility systems will operate within the capacity of Vandenberg AFB and Cape Canaveral AFS.

e. Hazardous Materials and Hazardous Waste Management

Under the Proposed Action, total hazardous materials and hazardous waste will increase slightly over the No-Action Alternative. These increases will result from the use of additional and larger SRMs and an increase in the total number of launches over the No-Action Alternative. The Proposed Action projects a total of 94 more launches than the No-Action Alternative. The increase in the number of launches is due to demand forecasted by the government and commercial launch mission models. The Proposed Action will require staging and temporary storage of additional SRMs onsite or at approved locations nearby.

The FSEIS concludes that because the wastes from the Proposed Action will be similar to wastes currently handled at the installations, there will be no adverse impacts. Materials and wastes generated as a result of the EELV program will be consistent with materials and wastes currently handled at both installations and are the responsibilities of the launch vehicle contractors. The government and the contractors will conduct all launch activities in accordance with applicable regulations for the use, storage, and disposition of hazardous materials.

f. Health and Safety

The FSEIS also concludes that there will be no significant impacts to health and safety from the Proposed Action. The Proposed Action will result in larger and more frequent hydrogen chloride (HCl) ground clouds than the No-Action Alternative. However, as in the No-Action Alternative, the Air Force has established safety procedures at Cape Canaveral AFS and Vandenberg AFB to prevent or minimize exposure to toxic launch emissions. The analyses conclude that there will be no impacts because of airborne chemicals emitted from the SRMs. I have carefully considered the concerns for safety expressed by the City of Lompoc, and I am confident that the safety procedures followed by the Air Force, executed with the cooperation of the community, will ensure the health and safety of the public.

The EELV Program will design launch trajectories to ensure safety on the ground and at sea. This approach represents no change from the No-Action Alternative except for the addition of SRM drop zones—open ocean areas where staged SRMs drop from the core booster. The analyses conclude that there will be no public health and safety or environmental impacts as a result of the SRMs dropped into open ocean areas.

Transporting hazardous materials in accordance with U.S. Department of Transportation (DOT) regulations should prevent any significant impact to health and safety.

g. Geology and Soils

At both Cape Canaveral AFS and Vandenberg AFB, there will be no significant impacts to geology and soils. For the Atlas System, the 1998 FEIS analyzed all the ground-disturbing activities that will occur. The Delta IV ILV will require additional paving for vehicle turnaround at the Receipt Inspection Shop and at the Segment Ready Storage at Cape Canaveral AFS to accommodate the larger SRMs, but this will not result in significant impacts. The effect of the Proposed Action is substantially similar to the No-Action Alternative. The only changes required for the Delta IV ILV at Vandenberg AFB will be modifications to the interiors of buildings. These interior changes will not require ground-disturbing activities.

h. Water Resources

The FSEIS concludes that there will be no significant adverse impacts to surface water and groundwater from the Proposed Action. The effect of the Proposed Action on water resources is substantially similar to the No-Action Alternative. Implementation of the Proposed Action will not affect the quantity of water available to the installations or to the surrounding areas, nor will it increase the amount of water withdrawn from groundwater resources. Therefore, adverse impacts to groundwater resources are not expected, and no mitigation measures are required.

The Proposed Action will not result in problems meeting the National Pollution Discharge Elimination System (NPDES) requirements for storm water discharge associated with construction activity. Launch pad deluge and washdown water will be recycled after launches, or discharged and/or disposed of in accordance with applicable industrial wastewater permits and regulations.

The analyses conclude that any pH changes from increased deposition of HCl into surface waters on the launch installations as a result of the use of additional SRMs will be temporary and not constitute a significant impact. The proximity of the ocean also provides an ambient buffering effect that serves to dilute HCl depositions.

i. Air Quality (Lower Atmosphere)

Construction for the Proposed Action will be essentially the same as for the No-Action Alternative. The increased use of SRMs and increased frequency of launches will raise emissions of some criteria pollutants.

However, peak-year emissions from the Proposed Action at Cape Canaveral AFS will not jeopardize the current attainment status of the criteria air pollutants. Baseline emissions in Brevard County are below the levels that would cause nonattainment of the air pollutant standards, and the peak-year emissions will be only a small fraction (less than one percent) of the current county baseline.

I have considered the concern of the potential effects of air quality on public health raised by the community of Lompoc, California. Because Lompoc and Vandenberg AFB are within an area of Santa Barbara County designated by the EPA to be in serious nonattainment for ozone, EELV program activities must comply with Clean Air Act (CAA) requirements which mandate that federal actions must comply with the applicable State Implementation Plan (SIP) to achieve attainment. The 1998 FEIS conformity applicability analysis found that the original EELV program was exempt from the CAA's general conformity requirements. Emissions from the Proposed Action also fall below the de minimis threshold of 50 tons for conformity. Therefore, the CAA, 40 CFR Part 93, does not require a formal conformity determination for the Proposed Action. This analysis will be in effect for 5 years unless there are subsequent changes to the Proposed Action. In addition, the total emissions from the Proposed Action at Vandenberg AFB

are not regionally significant because they are less than 10 percent of the Santa Barbara County emission inventory.

Therefore, I support the determination in the FSEIS that the Proposed Action emissions of air pollutants will not have a significant impact on public health or the environment at either location.

j. Air Quality (Upper Atmosphere)

Increased use of SRMs in the Proposed Action will generate increased emissions of aluminum oxide, nitrogen oxides, and chlorine compounds into the stratosphere. This will cause temporary local ozone losses to occur more frequently and over larger areas compared to the No-Action Alternative. While the cumulative global impacts to stratospheric ozone over the lifetime of the EELV program will depend on the rate of EELV launches with SRMs, a conservative estimate of the yearly EELV contribution to the total annual global ozone decrease, based on the maximum expected launches of vehicles with SRMs, is less than 0.1 percent of total yearly global ozone decreases. This constitutes an insignificant decrease in global ozone compared to that from ground-based sources of ozone depleting substances.

k. Noise and Sonic Booms

Launch noise will be short term and intermittent and no public or structural impacts are expected. The effects of noise and sonic booms from the Proposed Action will be substantially similar to the No-Action Alternative. The Proposed Action results in 94 more launches compared to the No-Action Alternative. Therefore, launch noise will occur more frequently. However, analysis demonstrates that launch noise levels at the nearby communities will only be somewhat greater than the sound generated by a passing automobile, but less than that generated by a heavy truck. Additionally, the FSEIS predicts that noise levels of the proposed launch vehicle configurations will be 2 to 3 decibels (dB) lower than the noise generated by HLVs under current programs. Therefore, I support the determination that launch noise will not have a significant impact on the environment or public health.

Sonic boom footprints for launches from Cape Canaveral AFS are offshore over the Atlantic Ocean. At Vandenberg AFB, sonic booms could occur over the Channel Islands, as they do now with other launch programs, and as they could with the No-Action Alternative. Sonic booms could potentially occur more frequently with the Proposed Action. However, noise from sonic boom reaching receptors on or near the Channel Islands will be similar to the sound of distant thunder and will not result in significant isolated or cumulative impacts.

l. Orbital Debris

The Proposed Action will increase the total EELV program launches by 94 launches compared to the No-Action Alternative and all launches will use cryogenic upper stages. Because of the increased number of launches, there will be a nominal increase in orbital debris from domestic vehicles. However, there will be no overall significant global effect due to orbital debris.

m. Biological Resources

The FSEIS analyses conclude that there will be minor temporary disturbances during the small-scale construction activities associated with the Proposed Action. The proposed modifications to existing facilities will not affect any critical habitat or jurisdictional wetlands. I have carefully considered the concerns expressed by the City of Lompoc regarding the need to use specific data for Vandenberg AFB to assess the effect of the Proposed Action on biological resources. I find that the additional analysis completed in response to this concern is sufficient for me to conclude that impacts to biological resources due to the Proposed Action will not cause significant, cumulative impacts.

There will be larger and more frequent HCl ground clouds from the increased use of SRMs, and these will temporarily affect flora and fauna at both installations. However, the effects of HCl and aluminum oxide (Al_2O_3) deposition from SRMs at both installations will be minimal. The analyses predict that plant species will recover from short-term impacts of launches. The FSEIS analysis projects that damaged vegetation resulting from a launch anomaly will regrow within the same growing season, because no lingering effects will be present.

The increase in the number of the Proposed Action's launches over the number of No-Action Alternative launches will cause more frequent noise and associated temporary disturbances of local species. However, based on the infrequent and brief occurrence of launch noise resulting from the Proposed Action, the analyses conclude that there will be no significant increases to impacts to wildlife from the No-Action Alternative. The FSEIS analyses predict that noise levels associated with the Proposed Action will be 2 to 3 dB lower than the noise associated with the HLV previously analyzed in the 1998 FEIS. Sonic booms over the Channel Islands have the potential to temporarily disturb marine mammals.

The Air Force initiated consultation with the National Marine Fisheries Service (NMFS) regarding impacts to essential fish habitat under the Magnuson-Stevens Conservation and Management Act. The Air Force found the Proposed Action will have "no greater than minimal adverse effects" to essential fish habitat under the NMFS regulations. The Air Force has considered the NMFS conservation recommendations and has agreed to implement the NMFS recommendations to minimize adverse impacts to essential fish habitats from launch anomalies.

n. Cultural Resources

There will be no effects to any archaeologically sensitive areas or to any prehistoric or historic archaeological sites now listed or that are eligible for listing on the National Register of Historic Places. The FSEIS has identified no traditional resources in the Area of Potential Effect (APE) at either installation. The effects of the Proposed Action are similar to the No-Action Alternative.

o. Environmental Justice

Activities associated with the Proposed Action and the No-Action Alternative will not result in disproportionately high and adverse impacts to low-income or minority populations as described in the 1998 FEIS.

IV. DECISION

After considering the potential environmental consequences of the Proposed Action and the No-Action Alternative, I have decided to approve the Proposed Action. My decision permits the continued development and deployment of the EELV program employing additional and larger SRMs and authorizes continued use of government property previously leased/licensed in support of the EELV program. I am satisfied that the requirements for public involvement were met, that public involvement was substantive, and that the issues raised during the public comment period have been considered and adequately addressed.

This ROD serves as public notification of my decision. While the environmentally preferred alternative is the No-Action Alternative, I have made my decision based on economic, technical, operational, and environmental considerations. Additionally, the Air Force either has already or will be implementing all practicable means to avoid or minimize environmental harm from the Proposed Action in accordance with this ROD. The Air Force will implement all appropriate mitigation and monitoring measures, potentially including a mitigation plan, as set forth in the FEIS, FSEIS, and RODs for both the FEIS and FSEIS.

APPROVED BY

A photograph of a document showing a handwritten signature and a date. The signature is written in dark ink and appears to read 'William O. Berry'. To the right of the signature, the date '5/25/2000' is handwritten. The document is slightly aged and has some texture visible.

William O. Berry, PhD
Associate Deputy Assistant Secretary
(Science, Technology and Engineering)
Assistant Secretary (Acquisition)

DATE